

## *Acoustics And Noise Control 2nd Edition*

Well established as a classic reference and specialised textbook, since its first publication in 1973, Heinrich Kuttruff's *Room Acoustics* combines detailed coverage with a state of art presentation of the theory and practice of sound behaviour in closed spaces. This sixth edition presents several additional new sections, for instance on the reflection of a spherical wave from a wall, on finite element methods for sound field calculation and on virtual reality, as well as giving an overhaul of the standard material. Particular emphasis is given to the properties and calculation of reverberation, the most obvious acoustical feature of a room. And further key topics include the various mechanisms of sound absorption and their practical application as well as scattering by wall irregularities including pseudo-stochastic structures. Extensive space is given to of psychoacoustic insights and the quality criteria derived from them, along with new procedures for the sensory assessment of concert hall acoustics. As in earlier editions, one full and updated chapter is devoted to the design and performance of electroacoustic systems which nowadays is not just a method for sound amplification but offers many possibilities for correcting acoustic deficiencies and modifying a hall's natural acoustics.

Illustrates the latest solutions to real problems occurring in industry, buildings, and communities. Second Edition offers many more 13roblem sets and end-of-chapter exercises as well as up-to-the-minute coverage of new topics.

*Environmental Noise Barriers* is a unique one-stop reference for practitioners, whether acoustical engineers, landscape architects, or manufacturers, and for highways departments in local and central authorities. This extensively revised new edition is updated in line with UK and EU legislation and international provision of barriers.

This textbook treats the broad range of modern acoustics from the basics of wave propagation in solids and fluids to applications such as noise control and cancellation, underwater acoustics, music and music synthesis, sonoluminescence, and medical diagnostics with ultrasound. The new edition is up-to-date and forward-looking in approach. Additional coverage of the opto-acoustics and sonoluminescence phenomena is included. New problems have been added throughout.

Theory and Applications

Detailing for Acoustics

A Practical Approach

Handbook of Noise and Vibration Control

Engineering Noise Control

Troy Lectures

*Environmental Noise Pollution: Noise Mapping, Public Health and Policy* addresses the key debates surrounding environmental noise pollution with a particular focus on the European Union. Environmental noise pollution is an emerging public policy and environmental concern and is considered to be one of the most important environmental stressors affecting public health throughout the world. This book examines environmental noise pollution, its health implications, the role of strategic noise mapping for problem assessment, major sources of environmental noise pollution, noise mitigation approaches, and related procedural and policy implications. Drawing on the authors' considerable research expertise in the area, the book is the first coherent work on this major environmental stressor, a new benchmark reference across disciplinary, policy and national boundaries. Highlights recent developments in the policy arena with particular focus on developments in the EU within the context of the European Noise Directive

Explores the lessons emerging from nations within the EU and other jurisdictions attempting to legislate and mitigate against the harmful effects of noise pollution

Covers the core theoretical concepts and principles surrounding the mechanics of noise pollution as well as the evidence-base linking noise with public health concerns

This is an updated and revised version of a book published by RAPRA in 1985 'Noise in the Plastics Processing Industry'. The original version provided guidance to managers and engineers in the plastics industry on ways to reduce high noise levels in the workplace, in order to reduce risk of noise induced hearing damage to employees. Practical methods for reducing noise from industrial machinery in general were described and then illustrated with 25 case studies all relating to plastics processing machines such a granulators, shredders, extruders and injection moulders.Noise control techniques described include standard noise control measures such as enclosures, silencers and the use of sound insulating, sound absorbing materials, use of vibration isolation and damping. Most of these techniques have not changed since 1985, however one new technique is now available - the use of active noise control methods. The scope of the revised text has been extended to include chapters on environmental noise, European Union machinery noise emission regulations, hearing protection and prediction of noise levels, and the design of quieter workplaces.A new chapter of case studies has been added which reviews many already published case studies and introduces some new ones.

Continuing the well-established legacy of the first edition, Industrial Noise Control, Second Edition examines the fundamental principles of noise and vibration control, maintaining the concise format and clarity of presentation that made its predecessor so popular. The authors illustrate solutions to real problems, identify and characterize major sources of industrial noise, and provide systematic design and engineering approaches to control. They supply useful acoustical performance charts, case histories, and tables of materials and supplies. Along with computer-aided calculations and digital instrumentation, the book shows how to plan for compliance with OSHA, DEP and EPA standards.

This book is written more for the practitioner than the casual reader. Although a high mathematical level is not needed, for much of the material some engineering knowledge is desirable. Noise control is not easy and there are no magic answers to problems. Careful study and patience are required to produce proficiency in the field of noise control.

Noise and Noise Control

Principles and Applications

Nonlinear Vibration with Control

Topics in Acoustic Echo and Noise Control

Active Control of Noise and Vibration

An Introduction to Noise Control

Architectural Acoustics, Second Edition presents a thorough technical overview of the discipline, from basic concepts to specific design advice. Beginning with a brief history, it reviews the fundamentals of acoustics, human perception and reaction to sound, acoustic noise measurements, noise metrics, and environmental noise characterization. In-depth treatment is given to the theoretical principles and practical applications of wave acoustics, sound transmission, vibration and vibration isolation, and noise transmission in floors and mechanical systems. Chapters on specific design problems demonstrate how to apply the theory, including treatment of multifamily dwellings, office buildings, rooms for speech, rooms for music, multipurpose rooms, auditoriums, sanctuaries, studios, listening rooms, and the design of sound reinforcement systems. Detailed figures illustrate the practical applications of acoustic principles, showing how to implement design ideas in actual structures. This compendium of theoretical and practical design information brings the relevant concepts, equations, techniques, and specific design problems together in one place, including both fundamentals and more advanced material. Practicing engineers will find it an invaluable reference for their daily work, while advanced students will appreciate its rigorous treatment of the basic building blocks of acoustical theory. Considered the most complete resource in the field – includes basic fundamental relations, derived from first principles, and examples needed to solve real engineering problems. Provides a well-organized text for students first approaching the subject as well as a reliable reference for experienced practitioners looking to refresh their technical

knowledge base. New content for developing professionals includes case studies and coverage of specific focus areas such as audio visual design, theaters, and concert halls.

Noise Control: From Concept to Application presents the basic principles of noise control and their practical application to real problems. Numerous examples are worked out in detail and are used to illustrate the concepts in the book. There are few derivations of equations, but reference is made to texts from which these are derived. An excellent learning tool for students and practitioners, this guide to noise control will enable readers to use their knowledge to solve a wide range of industrial noise control problems. Working from basic scientific principles, the author shows how an understanding of sound can be applied to real-world settings.

"Noise Pollution and Control Strategy discusses the basics of acoustic propagation, reviews the problem of noise generation over all national and international situations and gives various techniques available for noise measurements and assessment, health effects of noise, the standards adopted by various countries of the world, environmental impact assessment techniques, control measures and status of noise measurement and abatement practices. In the last chapter, an effort has been made to lay an appropriate strategy to control noise. The book concludes with the future vision in the area of noise pollution and an up-to-date list of references and bibliography. The acoustical terminology in a separate appendix would be of great help as a ready reference."--BOOK JACKET.

Authors are well known and highly recognized by the "acoustic echo and noise community." Presents a detailed description of practical methods to control echo and noise Develops a statistical theory for optimal control parameters and presents practical estimation and approximation methods

Room Acoustics

Engineering Noise Control, Fifth Edition

Innovations in Vehicle Development ; Active Noise Control: Two Modelling Approaches as Complementary Tools ; NVH Optimization: Interdisciplinary Drivetrain Development ; Lightweight Design: Fiber-Based Technology for Design Flexibility and Weight Savings

Springer Handbook of Acoustics

Engineering Acoustics

Fundamentals and Applications

**Absorbers and diffusers are two of the main design tools for altering the acoustic conditions of rooms, semi-enclosed spaces and the outdoor environment. Their correct use is important for delivering high quality acoustics. Unique and authoritative, this book describes how to effectively measure, model, design and apply diffusers and absorbers. It is a resource for new and experienced acousticians, seeking an understanding of the evolution, characteristics and application of modern diffusers. Absorption is a more established technology and so the book blends traditional designs with modern developments. The book covers practical and theoretical aspects of absorbers and diffusers and is well illustrated with examples of installations and case studies. This new edition brings Acoustic Absorbers and Diffusers up-to-date with current research, practice and standards. New developments in measurement, materials, theory and practice since the first edition (published in 2004) are included. The sections on absorbers are extended to include more about noise control.**

**Two of the most acclaimed reference works in the area of acoustics in recent years have been our Encyclopedia of Acoustics, 4 Volume set**

**and the Handbook of Acoustics spin-off. These works, edited by Malcolm Crocker, positioned Wiley as a major player in the acoustics reference market. With our recently published revision of Beranek & Ver's Noise and Vibration Control Engineering, Wiley is a highly respected name in the acoustics business. Crocker's new handbook covers an area of great importance to engineers and designers. Noise and vibration control is one largest areas of application of the acoustics topics covered in the successful encyclopedia and handbook. It is also an area that has been under-published in recent years. Crocker has positioned this reference to cover the gamut of topics while focusing more on the applications to industrial needs. In this way the book will become the best single source of need-to-know information for the professional markets.**

**Compiling strategies from more than 30 years of experience, this book provides numerous case studies that illustrate the implementation of noise control applications, as well as solutions to common dilemmas encountered in noise reduction processes. It offers methods for predicting the noise generation level of common systems such as fans, motors, c**

**This is an unparalleled modern handbook reflecting the richly interdisciplinary nature of acoustics edited by an acknowledged master in the field. The handbook reviews the most important areas of the subject, with emphasis on current research. The authors of the various chapters are all experts in their fields. Each chapter is richly illustrated with figures and tables. The latest research and applications are incorporated throughout, including computer recognition and synthesis of speech, physiological acoustics, diagnostic imaging and therapeutic applications and acoustical oceanography. An accompanying CD-ROM contains audio and video files.**

**Acoustics and Noise Control**

**A Practical Guide**

**Industrial Noise Control**

**Active Sound and Vibration Control**

**Volume 2**

**Acoustic Absorbers and Diffusers**

*Encompasses all up-to-date aspects of noise and vibration control in building services in one simple and convenient volume. It provides the necessary background in acoustics and, more importantly, practical advice in the evaluation and control of noise and vibration, with extensive use of tables, illustrations and actual examples. The book's contributors, the senior engineering staff of SRL Ltd, have more than 150 years' collective experience in acoustics, involving design and remedial work on noise and vibration aspects of building services.*

*Acoustics and Noise Control Prentice Hall*

*Blauert's and Xiang's "Acoustics for Engineers" provides the material for an introductory course in engineering acoustics for students with basic knowledge in mathematics. In the second, enlarged edition, the teaching aspects of the book have been substantially improved. Carefully selected examples illustrate the application of acoustic principles and problems are provided for training. "Acoustics for Engineers" is designed for extensive teaching at the university level. Under the guidance of an academic teacher it is sufficient as the sole textbook for the subject. Each chapter deals with a well defined topic and represents the material for a two-hour lecture. The 15 chapters alternate between more theoretical and more application-oriented concepts.*

*This classic and authoritative student textbook contains information that is not over simplified and can be used to solve the real world problems encountered by noise and vibration consultants as well as the more straightforward ones handled by engineers and occupational hygienists in industry. The book covers the fundamentals of acoustics, theoretical concepts and practical application of current noise control technology. It aims to be as comprehensive as possible while still covering important concepts in sufficient detail to engender a deep understanding of the foundations upon which noise control technology is built. Topics which are extensively developed or overhauled from the fourth edition include sound propagation outdoors, amplitude modulation, hearing protection, frequency analysis, muffling devices (including 4-pole analysis and self noise), sound transmission through partitions, finite element analysis, statistical energy analysis and transportation noise. For those who are already well versed in the art and science of noise control, the book will provide an extremely useful reference. A wide range of example problems that are linked to noise control practice are available on [www.causalsystems.com](http://www.causalsystems.com) for free download.*

*Theory, Design and Application*

*Architectural Acoustics*

*Advances in Measurement and Assessment Techniques*

*Noise Mapping, Public Health, and Policy*

*Industrial Noise Control and Acoustics*

*Fundamentals of Sound and Vibration*

Since the publication of the first edition, considerable progress has been made in the development and application of active noise control (ANC) systems, particularly in the propeller aircraft and automotive industries. Treating the active control of both sound and vibration in a unified way, this second edition of Active Control of Noise and Vibra

Earlier ed.: Acoustics and noise control / B. J. Smith, R. J. Peters, Stephanie Owen. 1982.

The practice of engineering noise control demands a solid understanding of the fundamentals of acoustics, the practical application of current noise control technology and the underlying theoretical concepts. This fully revised and updated fourth edition provides a comprehensive explanation of these key areas clearly, yet without oversimplification. Written by experts in their field, the practical focus echoes advances in the discipline,

reflected in the fourth edition's new material, including: completely updated coverage of sound transmission loss, mufflers and exhaust stack directivity a new chapter on practical numerical acoustics thorough explanation of the latest instruments for measurements and analysis. Essential reading for advanced students or those already well versed in the art and science of noise control, this distinctive text can be used to solve real world problems encountered by noise and vibration consultants as well as engineers and occupational hygienists.

Fully updated second edition of the premier reference book on muffler and lined duct acoustical performance. Engine exhaust noise pollutes the street environment and ventilation fan noise enters dwellings along with fresh air. People have become conscious of their working environment. Governments of most countries have responded to popular demand with mandatory restrictions on sound emitted by automotive engines, and a thorough knowledge of acoustics of ducts and mufflers is needed for the design of efficient muffler configurations. This fully updated Second Edition of Acoustics of Ducts and Mufflers deals with propagation, reflection and dissipation/absorption of sound along ducts/pipes/tubes, area discontinuities, perforated elements and absorptive linings that constitute the present-day mufflers and silencers designed to control noise of exhaust and intake systems of automotive engines, diesel-generator sets, compressors and HVAC systems. It includes equations, figures, tables, references, and solved examples and unsolved exercises with answers, so it can be used as a text book as well as a reference book. It also offers a complete presentation and analysis of the major topics in sound suppression and noise control for the analysis and design of acoustical mufflers, air conditioning and ventilation duct work. Both the fundamentals and the latest technology are discussed, with an emphasis on applications. Deals with reactive mufflers, dissipative silencers, the frequency-domain approach, and the time-domain approach. Fully updated second edition of the premier reference book on muffler and lined duct acoustical performance, in one complete volume. Presents original new research on topics including baffle silencers and louvers, 3D analytical techniques, and flow-acoustical analysis of multiply-connected perforated-element mufflers. Includes a general design

procedure to help muffler designers in the automotive industry, exhaust noise being a major component of automobile and traffic noise pollution. Written by an expert with four decades' experience in teaching to graduate students, publishing extensively in reputed international journals, and consulting with industry for noise control as well as designing for quietness.

Noise Control in Building Services

Principles and Practice

Noise Pollution and Control Strategy

Environmental Noise Barriers

Noise in the Plastics Processing Industry, 2nd edition

Noise and Vibration Control Engineering

Noise and Vibration Control Engineering: Principles and Applications, Second Edition is the updated revision of the classic reference containing the most important noise control design information in a single volume of manageable size. Specific content updates include completely revised material on noise and vibration standards, updated information on active noise/vibration control, and the applications of these topics to heating, ventilating, and air conditioning.

Modern noise research and assessment techniques are commonly used in the workplace and our personal living environment. Occupational Noise and Workplace Acoustics presents new, innovative, advanced research and evaluation methods of parameters characterizing acoustic field and noise in the working environment, as well as acoustic properties of rooms and noise reduction measures. This includes acoustic field visualization methods, field imaging techniques, wireless sensor networks, and the Internet of Things (IoT); optimization methods using genetic algorithms; acoustic quality assessment methods for rooms; and methods for measuring ultrasonic noise in the frequency range of 10-40 kHz. This book is a valuable resource for individuals and students interested in the areas of acoustic and sound engineering as it provides: The latest techniques and methods in the field of noise reduction and improvement of acoustic comfort, Innovative and advanced acoustic field visualization techniques for those with an auditory impairment, Explains noise reduction through proper workplace design, Discusses use of wireless sensor networks and the IoT for monitoring noise, and Provides acoustic quality assessment methods. "The authors' intention to expound on advanced issues in a lucid and accessible way was rewarded with success. In the book, an expert will find a number of hints helpful in solving actual problems, whereas a layperson will be able to form a view on challenges facing contemporary technology. What should also be emphasized is the book's soundness in documenting these advanced theses and postulates with diligently conducted empirical research. Despite a wide thematic range, the book is written consistently and under no circumstances can be considered a collection of randomly selected problems. The content corresponds fully to the title. The authors are consistent in acquainting the reader with topical scientific issues concerning assessment of acoustic hazards and the methodology of combating them." —Professor Zbigniew

Dąbrowski, BEng, PhD, DSc, Warsaw University of Technology

A Solid Introduction to Sound and Vibration: No Formal Background Needed This Second Edition of Fundamentals of Sound and Vibration covers the physical, mathematical and technical foundations of sound and vibration at audio frequencies. It presents Acoustics, vibration, and the associated signal processing at a level suitable for graduate students.

A comprehensive evaluation of the basic theory for acoustics, noise and vibration control

together with fundamentals of how this theoretical material can be applied to real world problems in the control of noise and vibration in aircraft, appliances, buildings, industry, and vehicles. The basic theory is presented in elementary form and only of sufficient complication necessary to solve real practical problems. Unnecessary advanced theoretical approaches are not included. In addition to the fundamental material discussed, chapters are included on human hearing and response to noise and vibration, acoustics and vibration transducers, instrumentation, noise and vibration measurements, and practical discussions concerning: community noise and vibration, interior and exterior noise of aircraft, road and rail vehicles, machinery noise and vibration sources, noise and vibration in rapid transit rail vehicles, automobiles, trucks, off road vehicles, and ships. In addition, extensive up to date useful references are included at the end of each chapter for further reading. The book concludes with a glossary on acoustics, noise and vibration

Occupational Noise and Workplace Acoustics

Fundamentals and Applications, Second Edition

Information Sources in Engineering

A Guide To Their Acoustic and Visual Design, Second Edition

Fundamentals of Noise and Vibration Analysis for Engineers

Automotive Acoustics

**Comprehensive, up-to-date coverage of principles, materials, and technologies**

**Architectural Acoustics provides the vital information that architects, engineers, and all concerned with the built environment need to control and direct wanted or unwanted sounds within and around buildings. A team of internationally recognized experts presents the very latest information on acoustical materials, technologies, design criteria, and methods for a wide variety of applications, including airports and other transportation facilities; theaters, churches, and concert halls; classrooms, lecture halls, and libraries; music practice rooms and recording studios; sports venues; and all types of residential, commercial, and industrial buildings. This comprehensive reference is one of the few books of its kind to include richly detailed case studies that demonstrate real-world applications of acoustic principles, materials, and methods.**

**Nearly two hundred photos and illustrations further elucidate specific principles, applications, and techniques. Topics covered include: \* Basic principles of architectural acoustics \* Acoustical materials and methods \* Building noise control applications**

**This book provides a comprehensive discussion of nonlinear multi-modal structural vibration problems, and shows how vibration suppression can be applied to such systems by considering a sample set of relevant control techniques. It covers the basic principles of nonlinear vibrations that occur in flexible and/or adaptive structures, with an emphasis on engineering analysis and relevant control techniques. Understanding nonlinear vibrations is becoming increasingly important in a range of engineering applications, particularly in the design of flexible structures such as aircraft, satellites, bridges, and sports stadia. There is an increasing trend towards lighter structures, with increased slenderness, often made of new composite materials and requiring some form of deployment and/or active vibration control. There are also applications in the areas of robotics, mechatronics, micro electrical mechanical systems, non-destructive testing and related disciplines such as structural health monitoring. Two broader themes cut across these application areas: (i) vibration suppression – or active damping – and, (ii) adaptive structures and machines. In this expanded 2nd edition, revisions include: An additional section on passive vibration control, including nonlinear vibration mounts. A more in-depth description of semi-active control, including switching and continuous schemes for dampers and other semi-active systems. A complete reworking of normal form analysis, which now includes new material on**

internal resonance, bifurcation of backbone curves and stability analysis of forced responses. Further analysis of the nonlinear dynamics of cables including internal resonance leading to whirling. Additional material on the vibration of systems with impact friction. The book is accessible to practitioners in the areas of application, as well as students and researchers working on related topics. In particular, the aim is to introduce the key concepts of nonlinear vibration to readers who have an understanding of linear vibration and/or linear control, but no specialist knowledge in nonlinear dynamics or nonlinear control.

Extensively updated edition of Norton's classic text on noise and vibration for students, researchers and engineers.

The current, thoroughly revised and updated edition of this approved title, evaluates information sources in the field of technology. It provides the reader not only with information of primary and secondary sources, but also analyses the details of information from all the important technical fields, including environmental technology, biotechnology, aviation and defence, nanotechnology, industrial design, material science, security and health care in the workplace, as well as aspects of the fields of chemistry, electro technology and mechanical engineering. The sources of information presented also contain publications available in printed and electronic form, such as books, journals, electronic magazines, technical reports, dissertations, scientific reports, articles from conferences, meetings and symposiums, patents and patent information, technical standards, products, electronic full text services, abstract and indexing services, bibliographies, reviews, internet sources, reference works and publications of professional associations. Information Sources in Engineering is aimed at librarians and information scientists in technical fields as well as non-professional information specialists, who have to provide information about technical issues. Furthermore, this title is of great value to students and people with technical professions.

**Selected Methods for the Cancellation of Acoustical Echoes, the Reduction of Background Noise, and Speech Processing**

**Predicting Outdoor Sound**

**Acoustics for Engineers**

**The Science and Applications of Acoustics**

**For Flexible and Adaptive Structures**

This book presents the established fundamentals in the area of active sound and vibration control and explores new and emerging technologies and techniques. The latest theoretical, algorithmic and practical applications are covered.

Acoustics and Noise Control provides a detailed and comprehensive introduction to the principles and practice of acoustics and noise control. Since the last edition was published in 1996 there have been many changes and additions to standards, laws and regulations, codes of practice relating to noise, and in noise measurement techniques and noise control technology so this new edition has been fully revised and updated throughout. The book assumes no previous knowledge of the subject and requires only a basic knowledge of mathematics and physics. There are worked examples in the text to aid understanding and a range of experiments help students use complicated apparatus. Thoroughly revised to cover the latest changes in standards, codes of practice and legislation, this new edition covers much of the Institute of Acoustics Diploma syllabus and has an increased emphasis on the legal issues relating to noise control.

This book treats important topics in "Acoustic Echo and Noise Control" and reports the latest developments. Methods for enhancing the quality of transmitted speech signals are gaining growing attention in universities and in industrial development laboratories. This book, written by an international team of highly qualified experts, concentrates on the modern and advanced methods.

Suitable for both individual and group learning, Engineering Acoustics focuses on basic concepts and methods to make our environments quieter, both in buildings and in the open air. The author's tutorial style derives from the conviction that understanding is enhanced when the necessity behind the particular teaching approach is made clear. He also combines mathematical derivations and formulas with extensive explanations and examples to deepen comprehension. Fundamental chapters on the physics and perception of sound precede those on noise reduction (elastic isolation) methods. The last chapter deals with microphones and loudspeakers. Moeser includes major discoveries by Lothar Cremer, including the optimum impedance for mufflers and the coincidence effect behind structural acoustic transmission. The appendix gives a short introduction on the use of complex amplitudes in acoustics.

Sound Research Laboratories Ltd

Acoustic Echo and Noise Control

Noise Control

Environmental Noise Pollution

Noise and Vibration Control

Acoustics of Ducts and Mufflers

Adopting a multi-disciplinary approach to the practice of achieving a more acceptable acoustic environment, this book draws on the same basic principles to cover both the outdoors and indoor space. It starts with the fundamentals of sound waves and hearing and goes on to the measurement of noise and vibration, room acoustics, sound absorption, airb This practical guide for managers and engineers in the plastics industry shows how to reduce high noise levels which often occur in the workplace and reduce the risk of noise-induced hearing damage to employees. Practical methods for reducing noise from industrial machinery are described and illustrated with about twenty-five case studies relating to plastics processing machines such as granulators, shredders, extruders and injection moulders. Noise-control techniques include standard noise-control measures: enclosures, silencers and the use of sound insulating, sound-absorbing materials, vibration isolation and damping; and now the use of active noise control methods. Along with fresh case studies this new edition adds chapters on environmental noise, on European Union machinery noise emission regulations, hearing protection, prediction of noise levels, and the design of quieter workplaces.

Detailing for Acoustics, Second Edition focuses on the techniques, principles, and approaches involved in acoustics. The publication first elaborates on objectives and details. Topics cover sources, format, content, roofs, ceilings, partitions, walls, floors, doors, windows, linings, and services. Sketches that represent the standard details of roofs, partitions, walls, and floors, sound absorption and standard details of ceilings, machinery enclosures, noise barriers, and standard details and sound absorption of timber floors and concrete floors are presented. The manuscript examines sound absorption and insulation and external noise. Drawings that show the acoustic capabilities of different walls or ceiling finishes and the effect of enclosure on sound absorption are presented. The publication is a useful reference for architects and design engineers wanting to pursue further studies in acoustics.

The second edition of Predicting Outdoor Sound is an up-to-date reference on the propagation of sound close to the ground and its prediction. New content includes comparisons between predictions and data for road traffic, railway and wind turbine noise; descriptions of source characteristics in the HARMONOISE model; propagation over rough seas, parallel low walls, and lattices; outlines of numerical methods; gabion (caged stones) and sonic crystal noise barriers; meteorological effects on noise barrier performance; and the prediction requirements for auralization. The book brings together relevant theories, prediction schemes, and data, thereby providing a basis for determining what model or scheme might be applicable for any situation. It also offers a background on useful analytical approximations and the restrictions, as well as difficulties and limitations associated with engineering prediction schemes. The text should be of considerable interest to researchers in outdoor sound propagation and, more generally, it should provide a comprehensive primer on the topic for lecturers, consultants and students in acoustics and noise control.

Noise in the Plastics Processing Industry

Theory and Practice, Fourth Edition

From Concept to Application

Environmental and Architectural Acoustics